

INTERNATIONAL SEARCH REPORT

Inte: plication No
PC1/US U3/38706

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D471/04 C07D405/12 C07D409/12 C07D213/73 C07D401/12
 C07D495/04 A61K31/4427 A61P31/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, CHEM ABS Data, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/27103 A (SMITH-KLINE) 19 April 2001 (2001-04-19) the whole document	1-3, 9-19, 24-47
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 02, 29 February 2000 (2000-02-29) & JP 11 302173 A (MITSUI CHEM INC), 2 November 1999 (1999-11-02) figures; examples 5-11,63-67	1,9,24, 34
X	EP 1 000 935 A (TSUMURA) 17 May 2000 (2000-05-17) page 1 -page 6; claims; examples 20-23,42-46,56,57,65,90	1,9,24, 34
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

7 April 2004

Date of mailing of the international search report

21/04/2004

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

Intern: .pplication No

PCT/US 03/38706

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 93/04035 A (BOEHRINGER) 4 March 1993 (1993-03-04) claims; examples 3,5,10 ---	1,9,24, 34
P,X	WO 03/086396 A (TSUMURA) 23 October 2003 (2003-10-23) the whole document -----	1,9,24, 34

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Int'l application No.
PCT/US 03/38706

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 43 to 47 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Interr Application No
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0127103	A	19-04-2001	AU 7874700 A	23-04-2001
			BR 0014470 A	24-09-2002
			CA 2387016 A1	19-04-2001
			CN 1378542 T	06-11-2002
			CZ 20021167 A3	12-06-2002
			EP 1226138 A1	31-07-2002
			HU 0203122 A2	28-01-2003
			JP 2003511448 T	25-03-2003
			NO 20021638 A	05-06-2002
			NZ 517706 A	30-01-2004
			TW 534909 B	01-06-2003
			WO 0127103 A1	19-04-2001
			ZA 200202631 A	20-03-2003
JP 11302173	A	02-11-1999	NONE	
EP 1000935	A	17-05-2000	AU 737018 B2	09-08-2001
			AU 8357798 A	16-02-1999
			CA 2298480 A1	04-02-1999
			EP 1000935 A1	17-05-2000
			US 6313153 B1	06-11-2001
			WO 9905109 A1	04-02-1999
WO 9304035	A	04-03-1993	DE 4126662 A1	18-02-1993
			AT 132849 T	15-01-1996
			AU 2418692 A	16-03-1993
			CA 2115349 A1	04-03-1993
			DE 59205041 D1	22-02-1996
			WO 9304035 A1	04-03-1993
			EP 0527458 A1	17-02-1993
			EP 0600949 A1	15-06-1994
			JP 6510030 T	10-11-1994
			MX 9204622 A1	01-04-1993
			ZA 9206049 A	14-02-1994
WO 0386396	A	23-10-2003	WO 03086396 A1	23-10-2003

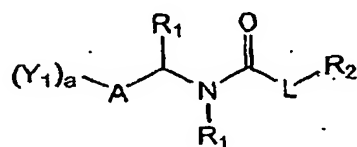
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International application No.

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Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

In part, the present invention is directed to antibacterial compounds of formula (I):



(I)

wherein A is a bicyclic heteroaryl ring or a tricyclic ring and R₂ is an heterocyclic residue; L is a bond, or L is alkyl, alkenyl or cycloalkyl.